Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-23. Cancelled

24. (Previously Presented) A deposition method for forming an aluminide coating containing at least two different extrinsic metals on a jet engine component, comprising:

passively coupling a single port of a receptacle in fluid communication with a main reaction chamber;

providing a first vapor phase reactant including a first extrinsic metal from the receptacle to the main reaction chamber;

generating a second vapor phase reactant including a second extrinsic metal inside the main reaction chamber, the second extrinsic metal differing in composition from the first extrinsic metal;

heating the jet engine component; and

contacting the first and second vapor phase reactants with the heated jet engine component to form the aluminide layer including the first and the second extrinsic metals, wherein the aluminide layer is capable of forming a complex oxide when heated in an oxidizing environment.

25. (Original) The deposition method of claim 24 wherein the first metal originates from a metal-halogen Lewis acid.

26. (Previously Presented) The deposition method of claim 25 wherein the second extrinsic metal is aluminum and the first extrinsic metal is selected from the group consisting of aluminum, chromium, cobalt, hafnium, iridium, niobium, palladium, platinum, rhodium, silicon, titanium, yttrium, and zirconium.

27. (Original) The deposition method of claim 26 wherein the metal-halogen Lewis acid is provided as a hydrated or anhydrous solid compound.

28. (Original) The deposition method of claim 25 wherein the metal-halogen Lewis acid is selected from the group consisting of $AlCl_3$, $CoCl_4$, $CrCl_3$, CrF_3, $FeCl_3$, $HfCl_3$, $IrCl_3$, $PtCl_4$, $RhCl_3$, $RuCl_3$, $TiCl_4$, YCl_3, $ZrCl_4$, and ZrF_4.

29. (Original) The deposition method of claim 24 wherein the jet engine component is fabricated from a superalloy.

30. (Original) The deposition method of claim 24 wherein the second metal constitutes less than 10 wt.% of the aluminide layer.

31. (Original) The deposition method of claim 24 wherein providing the first vapor phase reactant is free of a flow of a carrier gas into the receptacle.

32. (Withdrawn) A method of retrofitting a receptacle to an existing simple chemical vapor deposition reaction chamber to permit coating a jet engine component with at least two different metals, comprising:

positioning a receptacle outside an existing simple chemical vapor deposition reaction chamber;

sealingly coupling one of a pair of normally open apertures of a conduit for fluid communication with a single receptacle port of the receptacle to define a closed communication path; and

sealingly coupling another of the pair of normally open apertures for fluid communication with the simple chemical vapor deposition reaction chamber such that the simple chemical vapor deposition reaction chamber and receptacle constitute a closed space sharing a common deposition environment.

33. (Withdrawn) The retrofitting method of claim 32 wherein positioning the receptacle further comprises mechanically supporting the receptacle with the reaction chamber.

34. (Previously Presented) A deposition process comprising:

placing a metal component in a deposition environment in a main reaction chamber;

providing a first source of a first extrinsic metal independent of the metal component in the main reaction chamber;

providing a second source of a second extrinsic metal to the main reaction chamber via a closed pathway from an external receptacle without a carrier gas; and

while the metal component is in the main reaction chamber, exposing the metal component, the independent first source and the external second source to a deposition environment in the main reaction chamber for a time sufficient to form an aluminide layer at the metal component including the first and the second extrinsic metals.

35. (Previously Presented) The deposition process of claim 34 wherein providing the first source further comprises:

placing an activator material and a donor material containing the first extrinsic metal into the main reaction chamber; and

reacting the activator material with the first donor material to provide the first source.

36. (Original) The deposition process of claim 35 wherein reacting the activator material further comprises:

heating the activator material sufficiently to cause migration of the activator material to the first donor material and to cause a chemical reaction releasing the first source.

37. (Previously Presented) The deposition process of claim 34 wherein providing the first source further comprises:

transporting a vapor containing the first source to the main reaction chamber in a flow of carrier gas.

38-43. Cancelled

44. (Previously Presented) A deposition method for forming a coating on a jet engine component, comprising:

placing the jet engine component in a deposition environment in a main reaction chamber adapted to hold the jet engine component on which the coating is to be formed;

providing a first vapor phase reactant including a first extrinsic metal independent of the jet engine component in the deposition environment inside the main reaction chamber;

heating the jet engine component;

passively coupling a second vapor phase reactant from a receptacle external to the main reaction chamber to the deposition environment inside the main reaction chamber via a closed first communication path with the main reaction chamber while the heated jet engine component is in the main reaction chamber; and

forming the coating including the first extrinsic metal on the heated jet engine component by cooperation between the first vapor phase reactant and the second vapor phase reactant.

45. (Previously Presented) The deposition method of claim 44 wherein the second vapor phase reactant includes a second extrinsic metal differing in composition from the first extrinsic metal.

46. (Previously Presented) The deposition method of claim 44 wherein forming the coating further comprises:

contacting the first and second vapor phase reactants with the heated jet engine component for a time sufficient to form the coating including the first and second extrinsic metals on the jet engine component.

47. (Previously Presented) The deposition method of claim 44 further comprising:

coupling a single port of the receptacle in fluid communication with the main reaction chamber, the receptacle being sealed but for the first communication path that is otherwise closed.

48. (Previously Presented) A deposition method for forming a coating on a jet engine component positioned inside a deposition environment of a main reaction chamber, the method comprising:

generating a first vapor phase reactant including a first extrinsic metal from a metal-halogen Lewis acid in a receptacle external to the main reaction chamber;

transferring the first vapor phase reactant from the receptacle to the deposition environment inside the main reaction chamber without assistance from a separate flow of a carrier gas from the receptacle to the main reaction chamber; and

contacting the first vapor phase reactant with the jet engine component to form the coating including the first extrinsic metal.

49. (Previously Presented) The deposition method of claim 48 wherein the metal-halogen Lewis acid is provided as a hydrated or anhydrous solid compound.

50. (Previously Presented) The deposition method of claim 48 wherein the metal-halogen Lewis acid is selected from the group consisting of $AlCl_3$, $CoCl_4$, $CrCl_3$, CrF_3, $FeCl_3$, $HfCl_3$, $IrCl_3$, $PtCl_4$, $RhCl_3$, $RuCl_3$, $TiCl_4$, YCl_3, $ZrCl_4$, and ZrF_4.

51. (Previously Presented) The deposition method of claim 48 wherein the jet engine component is fabricated from a superalloy.

52. (Previously Presented) The deposition method of claim 48 wherein the coating is an aluminide layer, and further comprising:

generating a second vapor phase reactant including a second extrinsic metal inside the deposition environment, the second extrinsic metal differing in composition from the first extrinsic metal;

heating the jet engine component; and

contacting the first and second vapor phase reactants with the heated jet engine component to form the aluminide layer including the first and the second extrinsic metals.

53. (Previously Presented) The deposition method of claim 52 wherein the second vapor phase reactant is generated independent of the jet engine component in the deposition environment inside the main reaction chamber.

54. (Previously Presented) The deposition method of claim 52 wherein the second extrinsic metal is aluminum and the first extrinsic metal is selected from the group consisting of aluminum, chromium, cobalt, hafnium, iridium, niobium, palladium, platinum, rhodium, silicon, titanium, yttrium, and zirconium.

55. (Previously Presented) The deposition method of claim 48 wherein generating the first vapor phase reactant further comprises:

placing an amount of a solid metal-halogen Lewis acid material in the receptacle; and

transforming the solid metal-halogen Lewis acid material into the first vapor phase reactant.

56. (Previously Presented) The deposition method of claim 55 wherein the solid metal-halogen Lewis acid material is in a hydrated or anhydrous crystalline form.

57. (Previously Presented) The deposition method of claim 55 wherein transforming the solid metal-halogen Lewis acid material further comprises:

heating the receptacle to a first temperature effective to convert from the solid metal-halogen Lewis acid material to a liquid form; and

heating the receptacle to a second temperature effective to convert from the liquid form to the first vapor phase reactant.